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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,937	12/03/2001	David Lee	821001	5738

7590 09/29/2003

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EXAMINER

ROMAN, ANGEL

ART UNIT PAPER NUMBER

2812

DATE MAILED: 09/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/997,937

Applicant(s)

LEE, DAVID

Examiner

Angel Roman

Art Unit

2812

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) 19 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 1 objected to because of the following informalities: In claim 1, line 7, the word - -on- -, should be inserted after the word components. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edwards et al. U.S. Patent 6,294,408 B1 in view of Hyoudo et al. U.S. Patent 6,521,482 B1.

Edwards et al. discloses a method of packaging components, comprising; forming an enclosure including a cover 20 having an air-cavity, said cover 20 comprising a vent hole 23 and sidewalls; mounting a component (die) 15 on a carrier 10; applying a curable adhesive 41 between said enclosure and said carrier 10, aligning said enclosure with the carrier 10 such that the component 15 is covered by said air-cavity cover 20 (see figure 6); curing said adhesive 41, said vent hole 23 providing for the escape of water and other gasses that may off-gas during the curing process from said air cavity (see Detailed Description, paragraph 17); sealing said vent holes with a curable material 47 (see figure 7); and curing said sealing material (see Detailed Description, paragraphs 18-21). The adhesive may be provided on the carrier or the cover (see claim1, paragraph d).

Edwards et al. is applied as above but lacks anticipation on disclosing mass-production of the package by forming an enclosure including a plurality of covers attached to a carrier and separating the enclosure and carrier to form a plurality of component package assemblies by sawing between each a plurality of components through a plurality of sidewalls and the carrier; disclosing polymer, ceramic or glass and combinations thereof as materials comprised in the enclosure; forming the enclosure using a molding process.

With respect to disclosing mass-production of the package by forming an enclosure including a plurality of covers attached to a carrier and separating the enclosure and carrier to form a plurality of component package assemblies by sawing between each a plurality of components through a plurality of sidewalls and the carrier;

and disclosing polymer, ceramic or glass and combinations thereof as materials comprised in the enclosure Hyoudo et al. discloses mass-production of a package by forming an enclosure including a plurality of ceramic covers attached to a carrier and separating the enclosure and carrier to form a plurality of component package assemblies by sawing between each a plurality of components through a plurality of sidewalls and the carrier; In view of this disclosure, it would have been obvious to a person having ordinary skills in the art at the time the invention was made to form multiple packages using the method describe in Hyoudo et al. in the primary reference of Edwards et al. since it would increase package productivity and reduce process costs.

Regarding forming the enclosure using a molding process, it would have been obvious to a person having ordinary skills in the art at the time the invention was made to use a molding process to form the enclosures in the primary reference of Edwards et al. as modified by Hyoudo et al. since ceramic covers are conventionally formed by molding processes.

Response to Arguments

5. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kim et al. and Braden et al. disclose methods of forming packaged semiconductor devices using covers comprising vent holes. Baba et al. discloses a method of producing multiple packaged devices.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angel Roman whose telephone number is (703) 306-0207. The examiner can normally be reached on Monday-Friday 8:30am-6:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Niebling can be reached on (703) 308-3325. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

AR

A handwritten signature in black ink, appearing to be "John Niebling", written in a cursive style.